TERMS & CONDITIONS

AND

SPECIFICATIONS

FOR

TENDER NO.
C-DOT/TENDER/2014-2015/006

Ref: C-DOT/TENDER/2014-2015/006 **29th January, 2015**

TERMS AND CONDITIONS OF TENDER NO. CDOT /TENDER/2014-2015/006

1. C-DOT is a registered scientific society set up by the Govt. of India for pursuing research in Telecommunications. C-DOT invites sealed quotations from reputed manufacturers / OEMs / Authorized Distributors / Authorized Agents / Authorized Representatives / Authorized Commercial Enterprises in India and abroad of reputed manufacturers for supply, installation, testing, commissioning, warranty and after sales support of the items given in this document **for our Delhi and Bangalore offices**.

2. Tenders should be sealed, **superscribed "Tender No. CDOT/TENDER/2014-2015/006, Sl.No. ref., Item Description and submitted only at the following office:**

PURCHASE GROUP
Centre for Development of Telematics
Electronics City, Phase I, Hosur Road,
Bangalore 560 100
Tel No.080-25119574/25119568
Fax No.080-25119572

and should be submitted on or before the closing date, i.e. **27-02-2015 before (1500 hrs.)**, if delivered personally and if the bids are sent by post/courier, the tender must **reach C-DOT, Bangalore** at the address given above before closing time and closing date.

C-DOT shall not be responsible for delays of any nature including postal and force majeure condition. Tenders received after the due date will not be accepted under any circumstances

The schedule of opening of bids is as follows and at the following venue:

Pre-bid meeting : Only for the items mentioned in our requirement list / Date & Timings indicated in the item list

Last Date of Bid Submission	**27-02-2015**	**1500 hrs**
Technical Bid Opening in the presence of intending bidders at C-DOT, Bangalore	**27-02-2015**	**1530 hrs onwards**

The EMD @ 2% of your total quoted value(including all applicable Taxes) should be submitted only in the Financial/Commercial part Envelope and an undertaking to be given in the technical bid for the same(without disclosing the amount) that the EMD had been enclosed in the financial bid.

Bid Rejection : **Bids without Tender fee and EMD shall be rejected outright. Incase the document is downloaded from our website, then please ensure that the Tender Document fee of Rs 1,000/- [US$ 25/-] is separately enclosed with the technical bid. Only one Tender fee is applicable for any number of items. However, separate bid document with separate EMD in commercial/financial bid should be submitted.**

IMPORTANT: Separate bids should be submitted for each item, incase you are participating for multiple items. Similarly, EMD should also be separately enclosed with each bid. However, tender fee shall be payable for one item only, details of which should be indicated in all the bids.

Participation of representative during the technical / commercial part opening authorized representative whom you have deputed to attend the tender opening should be in a position to answer all the queries raised (If any) and substantiate the same in writing with his signature on the spot. This will be binding on the company participating in the tender.

3. Any queries with regard to the above tender shall be entertained only by means of formal official letters/Fax/emails(**tender@cdot.in**) **on or before 1200** hrs on 04-02-2015. **No Technical and Commercial queries shall be entertained after 04-02-2015.** It may be noted that it is the sole discretion of C-DOT to consider the same or not and to reply only if it is deemed necessary. C-DOT will not be responsible for any non-receipt of letters/Fax/emails. **All the queries should be sent to the following email id only> tender@cdot.in. Queries sent to any other official email ids shall not be considered.**

Commercial Part Opening : The dates will be intimated subsequently to the technically shortlisted parties only. Tenders are invited for the following items, the required quantities, along with requisite Earnest Money Deposit (E.M.D) to be submitted, as given herein below.

REQUIREMENTS :

Sl.No.	Item Description	Qty
BANGALORE REQUIREMENTS		
1	Oscilloscope with 4 channels and 4GHz bandwidth on all channels with any 2 channels at 6Ghz bandwidth	1 [Pre-bid meeting on 06-02-2015 14.00 hrs]
2	Mixed signal Oscilloscope 2 GHz, 10GS/s	2 [Pre-bid meeting on 06-02-2015 14.00 hrs]
3	Vector Signal Generator	1
4	Baking ovens	2
5	UPS	1
6	WAN Router	1 [Pre-bid meeting on 06-02-2015 15.00 hrs]
DELHI REQUIREMENTS		
7	Optical Switch for Router Lab	1 [Pre-bid meeting on 06-02-2015 15.00 hrs]
REQUIREMENT for Delhi & Bangalore		
8	Desktops Mandatory to have service centre at both Delhi & Bangalore	1-100 101 & above
9	Laptops Mandatory to have service centre at both Delhi & Bangalore	1- 50 51 & above

The quantities mentioned above are only indicative and may change at the time of ordering at the sole discretion of C-DOT.

4. Tenderers are requested to study the terms and conditions of the Tender

carefully and then submit their tenders accordingly. Any tender/quotation received against this tender and any Purchase Order/Work Order/Annual Maintenance Contract resulting from this tender shall be governed by the terms and conditions indicated in this tender document and the tenderer quoting against this tender shall be deemed to have read, understood and accepted the same unconditionally.

The intending tenderers are requested to go through the Tender Notice available at C-DOT website and comply with all the procedures as prescribed therein. Replies to all Queries/Corrigendum(if any) shall only be up-loaded in our website www.cdot.in.

This Tender Document is non-transferable. Only the Manufacturers / OEMs / Authorized Distributors / Authorized Agents / Authorized Representatives / Authorized Commercial Enterprises purchasing the Tender Document are entitled to submit the quotes to C-DOT in their name**.**

The authorized Distributor/Authorised Agents/Authorised Representatives of the OEM are required to enclose the following documents along with the technical part.

a. **Details of Registration under Shops & commercial Establishment**
b. **Details of Registration with Registrar of firms/Registrar of companies**
c. **Service tax registration copy & VAT registration copy.**
d. **Proof of office address at Delhi and Bangalore.**

5. The tenderers should either be direct manufacturers or direct Indian arm / Office of the Manufacturer or the Authorized Indian Representatives of the Foreign Principals. **The date of such authorization should be current as on the date of announcement of this tender i.e., 29-01-2015 and should have a validity of at least six months**, **after the closing date of the tender**. However, it is necessary that the Principal Supplier [OEM] shall either have direct presence in India, or, have an authorized Distributor / Representative in India, and that such offices shall be equipped with adequately trained skilled staff, who can undertake repairs, calibration and routine maintenance of the tendered equipment.

6. **For PCs and Laptops which are required at both the locations, it is MANDATORY to have permanent office set-up at both the locations**. Necessary proof must be enclosed with the technical bids failing which your bid shall be summarily rejected.

6. C-DOT has adopted a two bid system. Therefore, the tenderers should submit their technical and commercial parts for each tendered item separately, two separate sealed envelopes marked as "Technical Part" and "Commercial Part". The two envelopes should further be put into another envelope and sealed for each individual tender item. EMD to be kept in Financial part only. An undertaking letter to be enclosed in the technical bid that they have complied to this clause.

7. The Technical Part should contain information on specifications, design, hardware, capacity and other relevant technical details conforming to C-DOT requirements ***in toto***. **It is imperative to note here that the technical part should be accompanied by all data sheets, technical literature, compliance chart and catalogues for each item in original. The suggested ordering information (BOM with supplier part nos.) to match C-DOT specifications must be indicated in the technical part.**

Sl.No.	Technical part should contain
1.	**An undertaking has to be given in the Technical Bid Envelope, certifying that the EMD of 2% of the total quoted price has been kept in financial bid (without disclosing the amount).**
2.	**Tender document Fee of Rs. 1,000.00 or USD 25.00,** in case the Tender document is downloaded from our website. **Bids without tender fee shall be summarily rejected.**
3.	Technical quote mentioning the details of make & model quoted, specifications, design etc.
4.	Data Sheets/Technical literature/Catalogues
5.	Technical Compliance as per Annexure–I.**Proper cross-reference to be explicitly indicated in the compliance statement.**
6.	Commercial Compliance as per Annexure – II
7.	**Year of launch of the equipment/EOL of the equipment**
8.	**Blank Commercial Part with detailed BOM.**
9.	Scope of Warranty (compliance as per clause 24)
10.	Scope of Post-warranty CAMC (compliance as per clause no. 30)
11.	Cliental list
12.	Authorisation certificate from the OEM specifically indicating our tender reference.
13.	Acceptance for submission of Bank Guarantee for 10% of the PO value valid for the warranty period in the event the PO is placed. **Alternatively, 90% payment shall be released and balance 10% after expiry of warranty period**.
14.	Check List as per Annexure – III

8. The commercial part should contain information on price quoted for equipment upto C-DOT designated place, payment terms, delivery period, or as stated in the specifications/guarantee period and other relevant information as per below.

Sl.No	Commercial part should contain
1	Commercial quote containing the price information of the make & model quoted in the technical part. : a) **EMD amount @2% of the quoted price inclusive of all taxes & levies**. b) Supply, installation & commissioning of the items **on C.I.F. C-DOT Delhi/Bangalore premises including customs clearance or F.O.R on INR basis**. c) **Three years comprehensive warranty**(as per clause 24 **or as specifically stated in the specifications**) d) Post-warranty CAMC after completion of warranty period from the date of acceptance of the equipment to be quoted as per clause 30 (as specifically stated in the specifications) **e)** Payment terms for post-warranty CAMC is deferred payment terms i.e on successful completion of services. **No Advance payment terms shall be acceptable.**
2	Payment terms –**As** per clause 32
3	Delivery schedule - **: As per clause 31**

9. Tenderers should submit the quotes along with E.M.D. **of 2% of the total quoted Price inclusive of all taxes and levies separately for each of bid submitted in their financial bid**. E.M.D. amount should be submitted by way of a crossed demand draft favoring "C-DOT-Bangalore" or by way of Bank Guarantee (in the format enclosed) for the said amount. This amount will be returned interest free, to the unsuccessful tenderers within 6 months from the closing date of the tender or finalization of the tender for the item, whichever is later. **The Bank Guarantee shall be valid for 6 months from the last date of submission of the quotes**.

10. **The EMD is payable by all categories of bidders and quotes without E.M.D. shall be treated as invalid. EMD shall be exempted for Govt. bodies / PSUs & SSI organizations (who are exempted from payment of EMD) on production of relevant proof.Quotes without E.M.D. shall be treated as invalid/rejected.** EMD submitted in the form of Fixed Deposits will not be accepted.

11. Technical Compliance statement for each tendered item is a pre-requisite for evaluation. Therefore the same must be submitted with the technical part. **Any falsification / suppression of facts in the compliance statement would lead to the rejection of the quote, along with forfeiture of the E.M.D**. Corresponding to each technical specification in the compliance statement, relevant serial no. / page no. / line no. etc., in the data sheet should be indicated. Incomplete compliance statement may lead to rejection of the quote.

12. **The template of** compliance **comparison statement is enclosed in Annexures I & II** All columns should be clearly filled up and, if more than one model is being quoted for, then different sheets should be submitted for each model. **Please do not fill only as "Complied" in column 3, but, also indicate the quantitative specifications**. Failure to do so may result in the quote not being considered. Please highlight the quantitative specifications in your data sheet / technical literature. If the space is not sufficient, then additional sheets may be used. The compliance comparison statement should be signed by the authorized signatory. If the compliance comparison statement is not filled up, then the quotations are liable to be rejected.

    The compliance statement should be enclosed with the technical part only. Compliance statement with respect to terms and conditions(Annexure-II) stipulated in the tender document should also be provided along with the technical part.

    The tenderers should submit the quotes along with the complete data sheets of the product. The vendor should also give the compliance of the item being offered with C-DOT specifications by highlighting on the data sheet with the relevant serial no. of C-DOT specifications written against the highlighted data. **No clarifications shall be taken by C-DOT incase detailed compliance is not enclosed.**

    In case, any modules are left out and the same is required for the functioning of the equipment as per our specifications, the same needs to be supplied Free of Cost.

13. Tenderers shall submit a list of clients in India and abroad, to whom they have supplied the equipment/items. This list should clearly enunciate the address of the premises / location of the equipment, where such equipment/software is installed, along with the names of the contact persons and their phone nos./fax nos./e-mail ids .

14. **The tenderer shall make a detailed presentation & demonstration to C-DOT,** covering the features of the items being quoted at the time of technical evaluation.

15. **Price comparison shall be based on the item cost with mandatory warranty period indicated in the specifications only**. **In some specific cases the comprehensive AMC price for definite period as mentioned in the specifications shall be taken into consideration for price comparison. In case, the AMC price has not been quoted, the financial bid will be summarily rejected. No revised offer will be entertained under any circumstances.** However, payment of AMC price shall only be released after every quarter or half-yearly period. **No advance payment terms shall be accepted**. **The Foreign Exchange Rupee parity shall be as on date of the commercial bid opening, based on TT(selling) rate given by RBI.**

16. The tenderer shall facilitate visits by the C-DOT team to their client installations in India, for the purpose direct technical assessment of the equipment at site.

17. **All overseas banking charges shall have to be borne by the supplier**. **No relaxation shall be permissible in this regard**. No amendment with respect to the above will be entertained. **This is for direct imports by C-DOT. Harmonised Synchronized System Number (HSS) should be given for all items quoted**. For details, please refer Import Export Policy and Custom Tariff / Excise Tariff of India. **If any license is required by C-DOT for import, then the same should be informed to C-DOT**.

    For indigenous supplies, the price quoted must be on **F.O.R. destination** basis and to the designated place as per tender clause no.37.

18. C-DOT is a public funded R&D organization set up by the Govt. of India and pursuant to notification no. 10/97 of Central Excise, C-DOT is exempted from paying Excise Duty. Intending tenderers are advised to take note of the above while submitting their quotes. Interested tenderers are requested to quote the basic price and the other statutory levies separately and indicate their acceptance to supply the material at its basic cost with applicable levies. **The exact amount of duties, if applicable, and the tariff head, under which it is applicable, must be indicated unambiguously in the commercial part**.

19. **C-DOT, being a public funded R & D organization, enjoys Customs Duty Exemption under Customs Notification No.51/96.Hence, tenderers are requested to quote in foreign currency in case the same is being made available from their Principals abroad, on C.I.F. C-DOT, Delhi/Bangalore Premises basis. No other terms shall be acceptable. Bidders shall be responsible for Customs clearance , inland transportation upto C-DOT Premises.**

    C-DOT shall only be providing Customs Duty Exemption Certificate as per the notification. The supplier is responsible to provide Cargo Arrival Notice(CAN) as soon as the shipment is landed in India. The supplier should ensure that a pre-alert with the invoice/packing list to be provided so that necessary time is given for preparation of Customs Duty Certificate(CDE). In case of any delay in providing/submission of the above documents and which attracts demurrage will have to be borne by the supplier.

    All the other expenses including DO(Delivery Order charges), Customs Clearance and transportation charges upto C-DOT premises shall be taken care by the local supplier.

20. C-DOT is registered with DSIR, Ministry of Science & Technology, Govt. of India, vide registration no. TU/V/RG-CDE(629)/2006.

21. All quotations received against this tender shall be governed by the terms and conditions indicated in the tender document. In the case of successful tenderers, E.M.D. amount will be forfeited to C-DOT in the following cases, without any further intimation:-

a) If, after submission of the quotation, the tenderer fails to honour the Purchase Order/Work Order/Letter of Intent or refuses to comply with any and/or all of the terms and conditions of the tender.

b) If the tenderer withdraws the offer during the validity period.

c) If the tenderer fails to submit the 10% Performance Bank Guarantee in accordance with Clause No.22.

22. As per C-DOT tendering procedures, in respect of hardware items (including the software items that may be embedded in the hardware), the successful tenderer(s) shall have to deposit a Security Deposit / Performance Bank Guarantee (PBG) **equivalent to 10% of the total order value for a duration upto the 3 years warranty/extended warranty/AMC or as per the warranty specifically stated in the specifications.** The same can be deposited through a Crossed Demand Draft favouring C-DOT or a Bank Guarantee as per the enclosed format in the tender document. In case of submission of Security deposit/Performance Bank Guarantee in the form of a Bank Guarantee, the same must be issued by an Indian nationalised bank or any prime international bank. If the performance bank guarantee / security deposit of the requisite amount stipulated in the purchase order is not submitted, the payments through Letter of Credit or Advance Draft/Sight Draft or any other mode shall not be made by C-DOT, even after the receipt of order acknowledgement,. Fixed Deposits shall not be considered as Performance Bank Guarantee**.**

In the case where a bank guarantee has been submitted against the PBG, the validity of the same should be equivalent to the warranty period from the date of acceptance of the item. The bank guarantee validity should, however, commence from the date of written acceptance by C-DOT, subsequent to installation & commissioning & acceptance at C-DOT. Since the bank guarantee has to be submitted before equipment supply, this objective shall be met by issuing necessary amendment to the bank guarantee later, after the date of written acceptance by C-DOT. If the Security Deposit is submitted towards faithful performance through a Demand Draft, then the same will be returned after the completion of the warranty period. The E.M.D. amount submitted by the successful tenderer will be returned to the supplier, only upon the submission of the security deposit/performance bank guarantee.

23. **It should be clearly noted that compliance to the commercial requirement of submission of security deposit/performance bank guarantee is mandatory. Any quote enunciating the non-acceptance to this clause is liable to be rejected**.

WARRANTY

24. The tenderer shall warrant that all equipment and services to be supplied shall be NEW and free from defects and faults in design, material, workmanship and

manufacture and shall be of the highest grade and in full conformity with the C-DOT specifications. Tenderers will be responsible for any defect that may develop arising from faulty material, faulty design and bad workmanship in the equipment/serviceand shall remedy such defect **at their own cost and at site**.

The tenderers are required to submit their quotes with a comprehensive warranty of 3 years on-site or as specifically stated in the specifications. By the term "Comprehensive Warranty" for a hardware item, it is meant that the repair, diagnosis, troubleshooting, parts replacement and calibration.

The Comprehensive warranty in case of a software and embedded software which forms part of a hardware equipment shall mean that all bug fixes/ patches / updates / upgrades / version release shall have to be supplied by the supplier
free of cost during the warranty period.

It may also be noted that during the warranty period, it would be the responsibility of the tenderer to get the required spares (required to replace defective parts) customs cleared and C-DOT would not get any required spares Custom cleared using its public funded R&D institution status under Customs Notification No. 51/96.

Quotes of the tenderers, who are unable to quote with 3 years warranty but have quoted with a warranty of 1 year and failed to quote for 2nd & 3rd year warranty, will not be considered and will be summarily rejected, even if they are capable of providing a suitable technical solution in line with C-DOT's technical specifications. However, incase AMC price is indicated, the same shall be taken into consideration for 3 years price comparison. No further clarification shall be taken or entertained.

All statutory levies shall have to be met by the tenderer and/ or their Indian Representatives towards replacement and repairs during the warranty period. Thus the warranty should be comprehensive, all paid up and unconditional.

The warranty shall commence from the date of written acceptance by C-DOT, subsequent to installation & commissioning. In case of any delays in installation / commissioning / rectification of faults, the warranty period shall automatically get extended by a month for delay of 15 days, or, part thereof.

Support during warranty period covers attending to C-DOT calls by technical support personnel of the vendor within 24 hours. Support(24 * 7) from vendors' software/service centers, through phone/Email/Fax, etc shall be required and is a must.

25. **Warranty Certificate should be submitted from the date of written acceptance**

given by C-DOT clearly indicating the commencement date and expiry of warranty. **This is a mandatory requirement.**

26. Calibration

The rates quoted for the warranty period or the post warranty CAMC, should also include calibration charges, for equipment/instruments supplied. No extra charges will be paid by C-DOT for calibration during the warranty period and post warranty CAMC period.

27. The appraisal of the performance of the material and services provided during the warranty period shall be done by C-DOT and the same shall be binding upon the tenderer.

28. All upgrades and updates and technical literature during the warranty / post warranty period should be shipped to C-DOT on pre-paid freight basis.

29. The tenderers are required to provide the details about the date of manufacturing in case of hardware requirements of C-DOT , along with support and upgrade road map for product/module development and update and upgrade path for software. It is also mandatory that any information pertaining to end of life (EOL) of both Hardware & Software items being quoted ,is provided at the time of submitting the Technical & Commercial part. The tenderers who fail to provide such information shall be solely responsible for bearing the cost arising out of obsolescence and/or end of life (EOL) at a later date, if they happen to be the beneficiary of C-DOT orders.

Apart from the above, the year of launch of the equipment / software quoted in the international market must also be indicated in the technical as well as in the commercial part, along with estimated life of the equipment and estimated years of support availability for the equipment.

COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT

30. After sales service is one of the critical factors for evaluation of the equipment, and commitment to the effect that service and support will be provided for the equipment after the expiry of the warranty period and during the lifetime of the item, shall be a decisive factor in the tender evaluation process. Tenderers must quote for **comprehensive AMC** (which shall include labour and cost of the material to be replaced, if any) **for the subsequent three years period separately** after the expiry of the mandatory warranty period as mentioned above.

The scope of Comprehensive AMC for a hardware item, it is meant that the repair, diagnosis, troubleshooting, parts replacement, consumables spares and calibration aspects would be the responsibility of the tenderer. Comprehensive AMC in case of a software and embedded software which forms part of a hardware equipment shall mean that all bug fixes/ patches / updates / upgrades / version release shall have to be supplied by the supplier free of cost during the warranty period.

The Comprehensive AMC must be quoted by all the suppliers for the subsequent three years period over and above the warranty period. Quotes without CAMC charges will be summarily rejected. The price comparison shall be made as per specific warranty & AMC details(incase given in the specifications) for each item given in this tender document. However, C-DOT reserves the right to undertake the AMC after successful warranty period.

In case of software, Operating System, Equipment, Firmware and Equipment OS, during Post warranty period, all updates and upgrades shall be supplied free of cost to C-DOT on pre-paid freight basis.CAMC covers attending to C-DOT calls by technical support personnel of the vendor within 24 hours. Support (24 * 7) from vendors' software/service centers, through phone/Email/Fax, etc shall be required and is a must.

It may also be noted that during the CAMC period, it would be the responsibility of the tenderer to get the required spares (required to replace defective parts) customs cleared and C-DOT would not get any required spares Custom cleared using its public funded R&D institution status under Customs Notification No. 51/96.

PAYMENT TOWARDS CAMC will not be made upfront. The same shall be made either once in three months or six months or one year as the case may be on submission of an appropriate invoice subject to satisfactory services rendered and accepted by C-DOT.

31. **DELIVERY DATE** : Time being the essence of the contract, the tenderers must indicate the firm delivery date by which the materials will be dispatched by them from the date of receipt of C-DOT order. They must also clearly indicate the time limit within which various phases shall be accomplished for work orders, etc.

32. **PAYMENT TERMS**:

a) ***IN CASE OF LOCAL/INDIGENOUS PURCHASE***

C-DOT is a public funded R&D organization set up by the Govt. of India. Pursuant to notification no. 10/97 of Central Excise, C-DOT is exempted from paying Excise Duty. The normal payment terms of C-DOT are within 30 days from the date of supply/installation/commissioning subject to qualitative and quantitative acceptance as the case may be.

C-DOT DOES NOT ACCEPT ANY REQUESTS FOR ADVANCE PAYMENT.

b) ***IN CASE OF IMPORT PURCHASE***

C-DOT is a registered scientific society set up by the Govt. of India and therefore enjoys Custom Duty Exemption on imports of all computers, software, accessories and equipment required for research and development in the field of telecommunications, under Customs Notification no. 51/96. Hence, suppliers are requested to quote in foreign currency, on C.I.F. C-DOT, Delhi/Bangalore

premises basis inclusive of customs clearance, DO charges and inland transportation charges to the designated premises.

The payments in case of overseas suppliers are generally made through Sight Draft and/or through Letter of Credit at the discretion of C-DOT, depending on the value of the purchase order and in accordance with RBI guidelines. In the event the payments are made through L/C, then only the L/C charges of C-DOT's bankers shall be to C-DOT's account. **However, all overseas/ beneficiaries' bankers' banking charges shall be to the beneficiary's account**. Payment shall be released within 30 days on receipt of material incase of High-Sea Sales shipments.

There will not be any further revisions/amendments/ relaxation permitted in this regard and the rates altered on this account. C-DOT will not be responsible for any demurrage on account of late submission/non-receipt of DO documents. **Proper shipment pre-alerts to be intimated one week in advance in order to prepare the Custom Duty Exemption Certificates.**

In respect of Updates & Upgrade and other maintenance of Hardware and Software, Income Tax will be deducted at Source as applicable and necessary Income Tax Deduction Certificate will be issued by C-DOT at the end of the year.

The tenderers are advised to quote taking note of the above and any quote received as 'NETT' will be presumed as inclusive of applicable taxes only.

33. **In case the delivery schedules are not adhered to and the supplies get delayed beyond schedules, penalties shall be imposed** on the vendor/tenderer by C-DOT and the penalty to be imposed will be @ 0.5% for every 01 week subject to the maximum being 5%. Of the total PO value. Delay beyond 10 weeks will be treated as an exception and C-DOT reserves the right to impose additional penalty at its discretion.

34. In case the tenderer fails to deliver the material/software or fails to provide services within the quoted delivery period in supercession to the above penalty clause, C-DOT reserves the right to make alternate procurement and arrangements only at the tenderers cost and risk. For this, the supplier shall be served with a notice of 2 weeks under a registered cover and in case of non-performance, on expiry of the notice period, the cost of alternate procurement /arrangements shall be recovered from the vendor.

35. **INSPECTION**: Materials, on their arrival at C-DOT, will be inspected for quality and quantity by C-DOT officials and their decision in the matter will be final and binding. The rejected material/s will need to be collected by the supplier within a reasonable period of time for replacement from our premises and all the charges on the same including packing charges will have to be borne by the supplier only.

In case of imports, replacements need to be received by C-DOT (on pre-paid freight basis) and only then will the supplier be allowed to collect the rejected materials from our premises. In case we do not receive any response to our letters soliciting the suppliers to collect the rejected material even within 16 weeks from the receipt of the rejected material at C-DOT, the same may be disposed off by C-DOT through auction, and the proceeds of such an auction shall be treated as earnings to C-DOT.

36. **Training** on the usage of the equipment/software should be provided **free of cost** to authorized personnel of C-DOT for a duration mutually decided. The nature of training and its modules must be detailed and spelt out.

37. Tenderers shall be required to provide complete assistance/guidance at site during the SITE PREPARATION and INSTALLATION & COMMISSIONING. **The scope of the tender includes Installation and Commissioning, warranty support and subsequent AMC support(as indicated in the specifications) given in this document. The same shall be the responsibility of the supplier or their authorized Indian Agents / Distributors / Representatives**.

38. The authorized Distributors/Dealers/Agents must enclose the Authorization Certificate issued by their principals. The same must be enclosed in both **TECHNICAL and the COMMERCIAL PART**. **Otherwise, the technical part shall not be accepted**. Authorization Certificate should be obtained from the OEM for each **quoted item and the authorization certificate should be obtained prior to the technical part opening. The specific Authorization Certificate from the OEM should be current as on the date of announcement of this tender** i.e., **14-08-2014.**

39. The manufacturer/or their representative has to get their product registered in Ministry of Communications and Information Technology under gazette Notifications dt. 3rd October, 2012, 20th March, 2013 and 25th June, 2013 if the items falls in list of 15 items as per Schedule-Column3[ii], namely " Electronics and IT Goods[Requirement of Compulsory Registration] Order, 2012". **The supplier has to take proper Indian Standard Number before proceeding for Import through directly or their representative for C-DOT. This is a mandatory requirement and the list of items covered under this notification is given in Annexure-V(To be re-written)**

40. In case the Purchase Order is placed on the Principal Supplier through their authorized Indian Agent / Distributor / Dealer and in the event the authorization of the Indian Agent / Distributor / Dealer is withdrawn from the Principal Supplier, then it shall be the responsibility of the Principal Supplier to continue providing the services and support to C-DOT either directly or through their appointed Indian Agent / Distributor / Dealer.

In other words, the responsibility of the compliance to the C-DOT Tender Terms & Conditions and of providing unconditional technical support shall entirely rest with the Principal Supplier, even though the EMD / Performance Bank Guarantee might have

been submitted by the erstwhile, current or any prospective locally authorized agent.

39. **The Tenderers/ OEM shall be required to necessarily submit the Test Report /Self Certification clearly enunciating that the parameters / specifications to which they have shown compliance in the Compliance Chart have been technically met and adhered to. They should further certify that these parameters / specifications are within the quoted / specified limits and that the equipment / software being supplied is working satisfactorily. Such a certificate must be enclosed with the original Shipping Documents.**

    Tenders should be complete in all respects and incomplete tenders not complying with the terms & conditions shall be summarily rejected without any notice.

40. **Quotations should be valid for a period of at least 6 months from the closing date of the tender**.

41. If, at any time, during the performance of the Purchase Order, the suppliers Encounter conditions impeding timely delivery of goods and performance of service, then they should promptly notify C-DOT, in writing, of the fact of the delay, the cause of delay and its likely duration. C-DOT shall evaluate the situation and at its discretion, decide to extend the suppliers, time for performance. C-DOT's decision will be final and binding.

42. **C-DOT reserves the right to award work to deserving parties either in full/parts. The decision of C-DOT shall be final and unquestionable**.

43. **C-DOT reserves the right to reject/accept any part or full Tender(s) without any reason whatsoever.**

44. FORCE MAJEURE shall mean and be limited to War hostilities, riot or civil commotion, earthquake, flood or other natural physical disaster and restriction imposed by the Government or their statutory bodies which prevents or delays the execution of the contract. In the event of delay lasting over one month, if arising out of cases of Force Majeure, C-DOT will still reserve the right to cancel the order/contract.

45. Disputes, if any, arising out of the above tender will be referred to courts having jurisdiction over **Delhi only** and shall be subjected to Indian laws including the law relating to Consumer Protection.

46. The specifications indicated in the tender are as per C-DOT's requirement. Tenderers have the option of quoting strictly as per the specifications indicated in the tender document or offer any equivalents meeting C-DOT's requirement. However, based on the compatibility, the decision of C-DOT on acceptance/rejection of the same would be final and unquestionable.

47. Please note that any falsification / suppression of information would lead to tender

disqualification.

48. **C-DOT is an R & D organization and is thus not registered under any State's Sales Tax or Central Sales Tax and thus has no C.S.T. and K.S.T. numbers**.

49. Exact details of Excise duty, Sales Tax, VAT and other levies must be clearly indicated. Please do not indicate taxes & levies "as applicable". It may be noted that C-DOT will not be giving ANY CONCESSIONAL FORMS nor will be claiming any MODVAT concessions.

50. C-DOT can only provide the Excise Duty Exemption Certificates for purchases made from Indian Manufacturers. However, **in case of High Sea Sales**, Custom Duty Exemption Certificates shall be issued. The local Indian suppliers shall be responsible for customs clearance and processing of relevant documentation required for High Sea Sales and delivery of the material to C-DOT upto the designated place**. Payment shall made within 30 days from the date of receipt and installation of the material in case of High Sea Sales shipment.**

51. In case, the date of opening of the tender happens to be an unscheduled holiday, the tender will be opened on the NEXT WORKING DAY at the same time and venue.

52. **REJECTION FACTORS** :

The quote will be rejected summarily if any of the following is not complied. The same has to be filled in annexure III.

a. **Quote to be submitted in two part i.e. Technical part & Commercial part separately**

b. **Separate EMD amount for each quoted item to be submitted along with the Commercial/Financial part only**. An undertaking has to be given in the Technical Bid Envelope, certifying that the EMD of 2% of the total quoted price(inclusive of taxes & levies) has been kept in financial bid (without disclosing the amount)

c. **Tender document fee in the form of Demand Draft(in case the documents are downloaded from our website) to be submitted along with the Technical Part Only.**

d. **Prices to be quoted for the items with three years on-site Comprehensive warranty from the date of acceptance as per clause no. 24 or as indicated in the specifications.**

e. **Post-warranty Comprehensive Annual Maintenance Contract charges (3 years CAMC) after mandatory warranty period should be indicated for subsequent three years (on yearly basis)**as per clause 30**. However, the**

warranty/CAMC period specifically indicated in the specifications shall override the period indicated in this general terms and conditions. In case, the AMC price has not been quoted, the financial bid will be summarily rejected. No revised offer will be entertained under any circumstances.

f. Acceptance for submission of Bank Guarantee for 10% of the PO value valid for a period of three years(for equivalent warranty period) from the date of acceptance in the event the PO is placed.

g. Specific Authorization letter from the OEM for participating against our tender/datasheets/technical literature / catalogues, year of launch of the product, EOL (end of life) and technical compliance & commercial compliance.

****

THIS BANK GUARANTEE TOWARDS THE E.M.D SHOULD BE TYPED OUT ON RS.50/- NON-JUDICIAL STAMP PAPER GIVING FULL POSTAL ADDRESS OF THE BANK.

Guarantee No :
Amount :
Guarantee Cover From : To :
Last Date for
Lodgment of Claim :

The Centre for Development of Telematics having its office at C-DOT Campus, Electronics City, Phase I, Hosur Road, Bangalore 560 100, having floated a Tender for (Tender for _____) with Tender no. hereinafter referred to as the tender, and M/s (name and address of the party) having the intention of participating in the above mentioned, we, the (banker's name and address) hereby irrevocably undertake and guarantee to you that in the event of the award of the Contract to the tenderer and subject to the failure of the Tenderer to perform any of the following clauses, we undertake to fully compensate the Beneficiary to a maximum amount of Rs. _____(Rupees _____ (in words) as and when the same is claimed from us in writing during the validity of the contract as per the terms and conditions of the tender contract.

1. If the tenderer fails to accept the contract with the terms and conditions of the contract.

2. If after the acceptance of the contract, the Tenderer fails to carry out the services in accordance with the terms and conditions of the contract.

3. If the tenderer withdraws the tender during the validity period.

4. If the tenderer fails to complete their services in accordance with the terms and conditions of the contract or if there is any unexcused delay on the tenderer's part which may warrant forfeiture of E.M.D. amount and or imposition of liquidated damages and or closure/termination of the contract for default.

We, the bank, abide by your Tender terms and conditions and we shall on demand and without demur, pay to you all and any sums upto a maximum of Rs. _____ (Rupees _____)
being the E.M.D. furnished by the tenderer to you in the form of this bank guarantee. We further agree that the Beneficiary shall be the sole judge as to whether the Tenderer has failed to perform as per the Tender terms and conditions duly specified by the Beneficiary.

We further hereby undertake to pay the amount due and payable under this guarantee without any demur merely on a demand in writing from the Beneficiary stating the amount claimed due by way of loss or damage. Any such demand made on the bank shall be conclusive and binding upon us as regards the amount. Lodgment of claim through Registered Post shall be conclusive evidence of claim made on us by the Beneficiary.

However, our liability under this guarantee shall be restricted to an amount not exceeding Rs._____(Rupees _____). We further agree that the claim made on us shall be settled within a period of 30 days from the date of lodgment of claim by the beneficiary.

We agree that the guarantee herein contained shall remain in full force and effect for a period of 6 months (six months). Unless a demand is made on us in writing within one month from the date of expiry of six months, we shall be discharged from all liability under this guarantee.

We further agree that any change in the constitution of the bank or the tenderer shall not affect our liability under this guarantee.

We further agree that the Beneficiary shall have the fullest liberty without in any way affecting our liability under this guarantee alter any or all of the terms and conditions of the tender.

Notwithstanding anything contained herein before our liability under this guarantee is restricted to Rs._____(Rupees_____). This guarantee shall remain in force upto a maximum of six months (6 months). Unless a demand in writing is made on or before _____ (one month from the date of expiry of six months (date) all your rights under this guarantee shall be forfeited and we shall be relieved and discharged from all liabilities under this guarantee.

We lastly undertake not to revoke this guarantee during the penance of the above said tender/tender contract except with the prior consent of the beneficiary in writing.

This guarantee must be returned to us in original immediately on the expiry of the validity date.

Sealed with the common seal of the bank on this the.....day of.....2008

DATE :

PLACE :

For BANKERS NAME

SEAL, ADDRESS

PERFORMANCE BANK GUARANTEE

GUARANTEE NO :

AMOUNT :

GUARANTEE COVER FROM : TO :

LAST DATE FOR LODGEMENT OF CLAIM :

In consideration of the Centre for Development of Telematics having its office at C-DOT Campus, Electronics City, Phase I, Hosur Road, Bangalore 560 100, hereinafter referred to as the Purchaser having placed order(s): 1. (Order no and date) 2. (Order no and date), with our constituents M/s _____ (name of your organization) hereinafter referred to as the contractor, having their office at (address of your organization) for the supply and installation of (give brief detail of the order placed) and our constituents having undertaken to guarantee the faithful performance of the contract during the warranty period as mentioned in the purchase order(s) referred above, we the (Banker's name and address), do hereby bind ourselves as their guarantors and undertake to be responsible to the purchasers and their successors and assigns for payment of all or any sums of money, losses, damage, costs, charges and expenses, that may become due or payable by the contractor, in the faithful performance of his said obligations and covenants under the above contract stated therein provided however that the total amount to be so recovered by the purchaser from us shall not exceed Rs. ____ (Rupees _____) amount of guarantee to be mentioned) payable under the said Purchase Order. We,_____ _____ (name and address of the bank) do hereby unconditionally and irrevocably guarantee payment, without demur and without recourse to the purchaser of sums upto Rs. _____ (Rupees _____) amount of guarantee in Rs._____ and words) on the purchasers first demand in writing making claim for payment to the purchaser by reason of failure on the part of the contractor to fulfill their obligations under the contract.

We hereby agree that lodgment of claim through registered post shall be conclusive evidence of lodgment of claim.

We further undertake to settle the claim within 30 days of lodgment of claim. This guarantee shall not be revocable by notice or otherwise and is unconditional and without recourse and our liability as surety shall not be impaired or discharged, until the contractor has fulfilled all the obligations under the contract and shall not be affected by any change in the constitution of the purchaser, Contractor or the bank.

Notwithstanding anything stated herein above our liability under this guarantee is restricted to Rs._____ (Rupees _____ amount of guarantee) and shall remain in force till (last date of guarantee) unless a demand or claim under the guarantee is made on us in writing within one month of the above mentioned date, i.e., before (date one month from the last date of guarantee cover) all your rights under this guarantee shall be forfeited and we shall be relieved and discharged of all liability hereunder.

Dated:
Place:

FOR
(Banker's name)
Address and common seal

ANNEXURE-I

COMPLIANCE STATEMENT (TECHNICAL) FOR _____

Ref: CDOT/TENDER/2014-2015/006

SL NO.	C-DOT TENDER SPECIFICATION	SPECIFICATION OF MODELS QUOTED	DEVIATIONS IF ANY
	PLEASE LIST DOWN EACH OF THE TENDER SPECIFICATIONS IN THIS COLUMN	PLEASE INDICATE THE SPECIFICATIONS OFFERED BY YOUR MODELS (DO NOT JUST SAY COMPLIED) COMPLIANCE FOR EACH MODEL OFFERED ARE TO BE GIVEN SEPARATELY.	
	ADDITIONAL FEATURES IF ANY		

NOTE: PLEASE FILL UP THE COMPLIANCE CHART FOR EVERY MODEL QUOTED

ANNEXURE-II

COMPLIANCE STATEMENT (Tender terms and conditions)
Ref: CDOT/TENDER/2014-2015/006

I hereby declare that all the information furnished by us are true to my knowledge.

I have no objection to C-DOT verifying any or all the information furnished in this document with the concerned authorities, if necessary. I also certify that I have understood all the terms and conditions indicated in the tender document and agreeing to, in entirety. I am signing this document as an authorized signatory in the capacity of _____.

Date :

Signature:

Place:

Name:

Designation:
Email ids:
Mobile Nos.

Seal of the company / Agency

ANNEXURE-III

CHECKLIST FOR THE TENDER CDOT/TENDER/2014-2015/006

SL.NO.	DESCRIPTION	YES	NO
1	Quote to be submitted in two part i.e. Technical part & Commercial part separately		
2	**An undertaking has to be given in the Technical Bid Envelope, certifying that the EMD of 2% of the total quoted price has been kept in financial bid (without disclosing the amount).**		
3.	Tender Fee of Rs. 1,000.00 or USD 25.00 to be submitted along with the Technical bid.		
4	Prices quoted with 3 years on-site Comprehensive warranty (As per clause 24) or as indicated in the specs.		
5	Post-Warranty Comprehensive AMC for three years(yearly basis) to be quoted (As per clause 30).		
6	Acceptance for submission of Bank Guarantee for 10% of the PO value valid for a period of three years(Equivalent Warranty period) from the date of supply/installation, commissioning of the item in the event the PO is placed (to be mentioned in the technical part)		
7.	Specific Authorization letter from the OEM, datasheets/technical literature / catalogues, year of launch of the product, EOL (end of life) and technical compliance Annexure–I & commercial compliance Annexure – II , as per clause no.7		

SL No.1

SPECIFICATION

FOR

SUPPLY & INSTALLATION OF OSCILLOSCOPE WITH 4 CHANNEL AND 4GHZ BANDWIDTH

QTY. 01 no.

[Pre-bid meeting to be held on 06-02-2015 @ 14.00 hrs]

Specification for Oscilloscope 4 Channel 4 GHz and 2 Channel 6 GHz Scope

No of input analog channels	4
Minimum analog(-3dB) bandwidth required on all channels	4GHz
Minimum analog(-3dB) bandwidth required on atleast two channels	6GHz
Calculated rise time (10-90%)	< =115ps (at 4GHz) and < = 80ps(at 6GHz)
Minimum Sample rate	10 Gsa/s (all channels) 20 Gsa/s (half channels)
Minimum Record memory depth	> = 500 Krecords (full channels), > = 1 Mrecords (half channels)
Display size	> 12 inch with multitouch
Waveform update rate	> 450,000 waveforms per second
Noise floor @1mV/div, 50ohm	< = 150 uVrms (at 4GHz) and < = 210 uVrms (at 6GHz)
Input Sensitivity	1 mV/div to 5 V/div (at 1 Mohm) and 1 mV/div to 1 V/div (50 Ohm)
Input coupling	AC,DC
Time Base range	100 ps/div to 50 s/div or better
Time base resolution	2.5 ps or better
Trigger	Vendor shall list the trigger system and type
Waveform Measurements	Vendor shall list the waveform measurements possible
Waveform Math	Vendor shall list the waveform math possible
Waveform Analysis	Vendor shall list the waveform analysis possible
Input Power range and Power cord	100-120 V, 50/60/400 Hz; 100-240 V, 50/60 Hz ± 10% auto ranging with Indian Power cord

Ports required	USB, 100/1000 Base-T , Video-out, Trigger out
Documentation	User guide, Service guide, Programmer manual, Certiicate of calibration
Accessories: Probe 1	Vendor shall state the number of probes supplied by default with the oscilloscope and their bandwidth
Accessories: Probe 2 - Differential	> = 6GHz bandwidth with Browser tip : 4Nos
	In Browser tip option, length from tip to probe head/amplifier to be stated
	Other supported tip options to be listed solderin/socket etc
	State whether single ended and common mode measurements supported, additionally the single ended bandwidth of the probe to be stated
Scope chassis dimensions	to be stated
Scope Weight	to be stated
Accessories: Front Panel Protection	Front Panel Cover
Accessories: Carry case	Flexible carry case

SL No.2

SPECIFICATION

FOR

SUPPLY & INSTALLATION OF MIXED SIGNAL OSCILLOSCOPE 2GHZ, 10GS/S

QTY. 02 nos.

[Pre-bid meeting to be held on 06-02-2015
@ 14.00 hrs]

Specifications for Mixed-signal oscilloscope

- Analog Bandwidth >= 2 GHz
- Record length : 125M per channel for minimum of 2 channels in non-interleaved mode
- Number of channels : Analog - 4, Digital – 16
- Sampling rate >= 10 GS/s sample rate on minimum of two channels
- Should be portable : weight < 15Kg
- Accessories required – Active probes (>= 1 GHz) 2 Nos.
  Passive probes (>= 500 MHz) 2Nos
- Should work with nominal AC supply of 230V, Frequency of 50 Hz.
- Warranty required for 3 years and AMC for a period of 2 years and beyond that

SL No.3

SPECIFICATION

FOR

SUPPLY & INSTALLATION OF VECTOR SIGNAL GENERATOR QTY. 01 no.

Technical Specifications for Vector Signal Generator

S.No.	Parameter	Specification
Technical Specifications		
1	Output Frequency	5MHz to 3 GHz
2	Output Level	-110 dBm to +10 dBm
3	Supported Digital Modulation Schemes	BPSK , QPSK,8PSK,16QAM,64QAM
4	Frequency resolution	≤0.01Hz
5	Frequency accuracy	≤0.05ppm at 25degC at calibration
6	SSB phase noise	≤-125dBc/Hz at 20KHz offset, measured at 2GHz
7	Modulation accuracy (for GSM, LTE)	≤0.8% rms
8	Multi-carrier RF output	upto 32 modulated carriers
9	Supported Standards	LTE (TDD and FDD), LTE-Advanced (TDD and FDD), GSM/EDGE
10	Support for MIMO	2x2
11	Internal Data Generator	PRBS , Sequence length upto 23
12	Output	I and Q Baseband Digital Output
		I and Q Analog Output
		Modulated RF Output
13	Baseband Filter	Cosine, Root Cosine (alpha = 0.1 to 1.0), Guassian, Rectangular
14	RF Bandwidth	To support LTE and LTE-A carrier aggregation upto 100MHz
15	Modulation Bandwidth (at RF)	≥100MHz
16	Fading and noise	channel fading andAWGN simulator for LTE and LTE-Advanced as per 3GPP rel. 8,9 &10
General specifications		
1	Interfaces	Ethernet, USB ,GPIB
2	Power supply	230 VAC, 50 Hz
3	Demonstration	During technical evaluation
4	Warranty	3 years
5	Interface to Matlab	to be provided

SL No.4

SPECIFICATION

FOR

SUPPLY & INSTALLATION OF BAKING OVENS
QTY. 02 nos.

Structure requirement

- **Internal Dimension : 60(W)x95(H)x50(D) cm**
- **External Dimension : 90(W)x161(H)x72(D) cm**
- **Outer body steel coated in epoxy anti-acid paint.**
- **Inner structure in stainless steel**
- **Stainless steel Heater**
- **Door sealing : silicon**
- **Glass wool insulation .**
- **Ventilation opening with manual flow control.**
- **Internal grid shelves adjustable to different height**

Technical Requirement

- **Forced air Convection**
- **Temperature range 50 to 200 deg centigrade**
- **Accuracy: ± 0.5 °C.**
- **Temperature uniformity : ± 3 °C.**
- **Heat up time 50 deg to 200 deg about 45 minutes**
- **Control mode : PID**
- **Operator Friendly Programmable Controller**

Electrical

- **Solid state Relay**
- **trouble indicator light**
- **Temperature sensor : k Type Thermocouple**
- **Nichrome heating element**
- **Fan Motor Over load Relay**
- **Over heat Protector Buzzer**
- **440 V , 3 phase, 50 Hz OR 220 V, 1 phase, 50 Hz**

- **First Level Spares Like K type Sensor, Fuses etc.**
- **Operational manual with electrical /mechanical Drawing.**
- **Three year warranty**

SL No.5

SPECIFICATION

FOR

SUPPLY & INSTALLATION OF UPS

Qty. 01no.

Specifications for 40 KVA Modular UPS

Requirement

Modular UPS system using modules of capacity less than or equal to 10 KVA to support a load of 40 KVA with 40 KVA redundancy in single cabinet with decentralised modular design employing granular parallel architecture and having Static Bypass in each module with the following technical specifications:

- Nominal Power: **40kVA + 40 KVA** – Power Factor (cosφ): 0.9;
- Topology: On Line Double Conversion VFI
- Technology: HI frequency PWM
- Passing through Neutral
- UPS should have multiple control modules to avoid single point of failure
- Modular Architecture based on less than or equal to 10 KVA Power Modules
- Possibility to configure the system in internal redundancy in the inverter cabinet
- Possibility to remove and replace power modules without switching the load on bypass
- Equipped with batteries of type: lead acid, sealed, free maintenance, VRLA AGM Technology, installed in a dedicated external battery rack. Batteries must guarantee a minimum back up time of **30 minutes in 15 mins dual string i.e., Two Battery banks for 30 minutes backup** at 40 KVA of the load

01.Required features.

The offer must comply with requirements presented in this tender, specifying the eventual deviation. Deviations must be indicated in the offer documentation; on contrary the requirements will be considered fully covered by the offered equipment.

Sl no	Parameter	Specifications required
01.	***On Line Double Conversion VFI*** The Topology of the UPS must be VFI (Voltage and Frequency Independent accordingly with classification mentioned in the EN- IEC62040-3 Standard), in order to guarantee filtered and stable output voltage to the load, independent of the input voltage. This means that the output is obtained by two converters (in cascade) In case of anomalies in the input voltage, the DC voltage, which is supplied to the inverter, should be obtained through a booster circuit from batteries to ensure guaranteed output with continuity. In case of overloads or faults, the automatic static by-pass should guarantee the load supply.	
02.	***Modularity*** The UPS must have modular architecture based on identical power modules which can be interchanged and connected in parallel, inside the UPS cabinet. It is not acceptable to have a system where one or more modules are kept in stand-by just as a back up, to be used only in case of another module failure.	

	Power modules should be equipped with control and self-diagnostic circuits, in order to easily individuate the faulty module and the specific failure inside it. Power Modules must be lighter than **10kg** so that it can be managed in service and maintenance, by a single person.	
03.	***Redundancy*** The UPS must be configurable as power redundant system, with modules of less than or equal 10 KVA contained in the same cabinet either for single phase or for three-phase run. This kind of redundancy must guarantee continuous supply and protect whenever one or more modules fail.	
04.	***Architecture*** The architecture of the UPS must be **parallel distributed**, to be more precise, the load will be shared between all the power modules in each phase. If one or more module fails all the others modules should take the relevant load without any interruptions or any transfer time at the output of the UPS.	
05.	***Power module*** Each Power Module should contain the following functional blocks: ▪ *Inverter* ▪ *Booster* ▪ *Battery Charger* ▪ *Rectifier/PFC* ▪ *Automatic Bypass*	
06.	***COMMAND BOARD*** The Command board must be equipped with microprocessor of suitable computation power. This command board must manage all the functions of the UPS and shall execute the following jobs: 1. Automatic recognition of the number of connected modules; 2. Automatic setting of the maximum reactive power that can be provided on the output; 3. Individual serial communication with the power modules by a dedicated line; 4. Recognition of a faulty module and diagnosis of the relevant fault; 5. Synchronization of the output voltage with the input voltage; 6. Generation of a reference sine-wave curve to form the output voltage wave;	

	7. Control of the PFC, inverter and booster circuits in each power module; 8. Management of the automatic bypass; 9. Management of the battery runtime (see relative section); 10. Management and recognition of the signals and measurements from each module; 11. Management of the user interface (see relative section); 12. Management and storage of UPS history parameters and data; 13. Alarm and events memory with association of the time and date of the events themselves.	
07.	***Batteries*** The maintenance-free stationary lead acid batteries shall be of AGM technology and housed in suitable MS rack. The positive and negative battery connections should be protected by an adequate fuse-holder/ isolating switch. **Battery management** The following functions must be available: Conduction of the battery test either automatically or upon the user's request. Battery efficiency test conducted by making an automatic full discharge at programmed or periodic frequencies, as required by the user. AGM-Absorbant glass mat	
08.	**Measurements** UPS must be controlled by a microprocessor and must be equipped with a backlit alphanumerical liquid crystal display (LCD), with 20 characters on 4 lines. This display shall be built into the front part of the UPS and there should also be an operating status indicator which shows the operating status and any alarm condition by means of a traffic light code. Buttons situated near the display should allow the user to: ▪ Display the operating data; ▪ Enter the operating parameters; ▪ Set running parameters;	
09.	***Controls***	

The UPS should have the following controls:

- UPS secure powering (protection against accidental powering);
- UPS stopping (to prevent accidental power outage while allowing the UPS to be quickly shutdown in an emergency. The button must remain depressed for at least 3 seconds);
- Buzzer silencer;
- Keyboard to browse the menus on the display, set parameters, confirming the selected functions and quitting.

10. ***Adjustments***

The UPS shall be able to allow the following adjustments to be made and shown on the display:

OUTPUT	**INPUT**	**BYPASS**	**BATTERIES**
▪ Voltage ▪ Frequency ▪ Redundancy N+X	▪ Enable synchronizing ▪ Extended synchronizing interval	▪ Enabling ▪ Forced ▪ Actuation sensitivity ▪ Off line mode ▪ Load waiting mode	▪ Limits ▪ Max. runtime with battery ▪ Max. runtime with battery after reserve limit ▪ Battery test enabling ▪ Auto-restart enabling

11. **Interface**

The UPS shall be equipped with:

- Terminals for connecting the EPO (Emergency Power Off) button;
- Two DB9 female connectors for the RS232 serial interface;
- One DB15 male connector for the logic signal interface;
- One interface with 5 relay outputs contacts to be set NC or NO by operator panel;
- Slot for a SNMP interface that allows the UPS diagnostics, remote control via the network and computer remote shutdown within the battery runtime.

2.Technical specifications

Description	***Specification***	***Vendor Compliance***
1.General Specifications		
UPS Topology	On line double conversion VFI	
Type of the UPS	De Centralized Parallel, Modular, Scalable, redundant based	
Architecture of the UPS	Granular Parallel Architecture	
In/Out phase Configuration	Three phase	
Neutral	Neutral Passing through	
Output wave form on mains run	Sinusoidal	
Output wave form on battery run	Sinusoidal	
Bypass type	Static and electro mechanic	
Transfer time	Zero	
Each Power modules capacity	Less than or equal to 10 KVA Power Modules to ensure minimum power loss in case of module failure .	
Each Power Module Should include	▪ *Inverter* ▪ *Booster* ▪ *Battery Charger* ▪ *Rectifier/PFC* ▪ *Automatic Bypass*	
2.Input		
Nominal Voltage	400 V three phase 4 wire +G (3Phase + N + G) PF ≥0.99 (M) Protection for Input Phase sequence Reversal. (D)	
Voltage range	-20% +15% (320V-460V)	

Frequency	50Hz ± 4 Hz, (autosensing)	
$THDi_{in}$	< 3% al 100% of nominal load	
Power Factor	> 0.9 from 50% to 100% of nominal load	
3.Output with mains (AC-AC)		
Nominal voltage	400 V three phase	
Nominal power	**40 kVA (36 KW) with redundancy 40 KVA**	
Voltage variation (static)	± 1%	
Voltage variation (dynamic 0-100%; 100-0%)	± 1%	
THDv on nominal power (linear load)	< 3 %	
THDv on nominal power (not linear load P.F.=0,7)	< 5 %	
Frequency	50Hz ± 0.5 Hz (Free Running) 50Hz ± 1Hz (In sync with Input)	
Frequency tolerance	Synchronized with input frequency or ± 1% free run	
Current Crest Factor	3:1 accordingly with IEC EN62040-3	
Overload capability:	**150% for 1 Minute** **125% for 10 Minute** (On Battery & Mains) **110% for 60 Minutes** (On Battery & Mains	
Efficiency	**≥ 95% DC-AC** **≥ 90% AC-AC**	
4.Output in battery Run (DC-AC)		
Nominal voltage	400 V three phase	
Nominal power	40 kVA (36 KW)	
Voltage variation (static)	± 1%	

Voltage variation (dynamic 0-100%; 100-0%)	± 1%	
THDv on nominal power (linear load)	< 3 %	
THDv on nominal power (not linear load P.F.=0,7)	< 5 %	
Frequency	50Hz	
Frequency tolerance	± 1% free run	
Current Crest Factor	3:1 accordingly with IEC EN62 040-3	
Overload capability: 2 min 30 sec	125% load rate with no bypass intervention 150% load rate with no bypass intervention	

5.Battery		
Type	SMF-Sealed maintenance free battery. Make-Exide/Yuasa/quanta/Amco/Rocket. All Batteries should belong to the same batch & same history and should be manufactured less than 3 months earlier, at the time of delivery.	
Nominal UPS Battery Voltage	As per design	
Battery charger type	PWM hi efficiency, one in each power module	
Charging Cycle	Intelligent with boost charge and advanced management	
Max Charging Current	As per design	
Battery Back-up	**30 Minutes** at full load A provision for Battery Banks paralleling/ combining should be available, in case one UPS is down for maintenance.	
Breaker	Separate Breaker to be provided for Batteries.	
6.Environmental specs		
Noise level @ 1m	50÷65 dBA	
Working temperature range	from 0°C to +40°C A/C will not be provided.	

Stock temperature range	from -20°C to +50°C (excluded batteries)	
Humidity range	20-80% not condensing	
Protection degree	IP21	
7.Mechanical and Miscellaneous		
Net Weight with out batteries[1]	Please Specify	
Dimensions (W×HxD)[2]	Please Specify	
Colour	Please Specify	
Technology rectifier/booster/inverter	IGBT	
Communication Interface	2 serial port RS232, 1 logic level port, 5Dry contacts port	
Input/Output connections	3P + N + PE Connectors on omega bar	
Installed Power Modules	less than or equal to 10 KVA Power Modules	
Standards	EN/IEC 62040-1, EN/IEC62040-2, EN/IEC 62040-3, CE	
08 Metering		
Metering (Digital)	Input & Output Voltage, Current & Frequency, Battery Voltage & Current (may be on LCD Panel/ Controller)	
09.Protection		
Protection	Output Overload / Short-circuit Trip Battery OV/UV Trip, Inverter Output OV/UV Trip Battery Over charging protection. Protection against Sustained Input Over Voltage	
10.Indications.		
Indications & Alarms	Normal Operation, Overload/ Over Temp. Indications, Battery Low Indication, Inverter UV/OV indications, Battery Low Pre Alarm with Audio Alarm, Converter & O/p Trip Indications	
11.Warranty		

Minimum Warranty	Warranty : **3 Years on-site for UPS and Batteries.** (Comprehensive) Comprehensive on-site AMC Charges for 5 more years after warranty should also be mentioned in financial bid separately.	
12.Support		
Service Support :	Installation & Commissioning is the responsibility of the supplier along with verification of specifications at our sites after installation Or at the factory (pre-shipment). Service Centre should be available at Bangalore & Delhi-NCR. All the required spares must be available at Both locations. The Service Centre shall be evaluated by CDOT. User Manual & Service Manual to be supplied. Quoted Model should be a stable model (minimum 100 UPS of same model (30/ 40/ 50 KVA) must be sold in last 3 years. UPS (H/w & S/w) should be supported for minimum 10 years after installation)	
13.Clint list.		
Customer List	Customer list with details of UPS, Capacity, Model No., Qty. sold, Date of delivery to be provided.	

The UPS Manufacturer must have ISO9001 certification for development, production, and services.

The UPS must have CE marking in accordance with European Directives 73/23, 93/68, 89/336, 92/31, 93/68.

3. Special Note:

Vendor should provide input-output cabling details to CDOT well in advance.

SL No.6

SPECIFICATION

FOR

SUPPLY & INSTALLATION OF WAN ROUTER QTY. 01 no.

[Pre-bid meeting on 06-02-2015 15.00 hrs]

WAN Router Specifications

SlN	Specification	Description
01	Performance	Forwarding performance of Minimum 5Gbps, Scalable to 10Gbps or higher
02	Form Factor and Modularity	Router should be Rack mountable, modular for expansion slots, high speed modules for scalability
03	High Availabilty	The Router should work with our existing Cisco 3945 Router in Active/Active and Active/Standby mode to meet high availability using VRRP/any other protocol, redundant router connections etc
04	Network Interfaces	a)Copper: 4 x 10/100/1000 RJ-45(4 SFP transceiver modules to be populated) b)Fiber: 4 x 1GbE (4 SFP transceiver modules to be populated)
05	Routing	Static IPv4 and IPv6 routes, policy-based routing, static multicast routing, MPLS Layer2 and Layer3 etc
06	Dynamic Routing	RIPv2, RIPng, OSPFv2, OSPFv3, BGP4, BGP4+, PIM-SM, PIM-SSM etc
07	IPv6 Readiness	Router to be IPv6 ready for all static, dynamic, multicast, QoS protocols. Ex:- Dual stack IPv4/IPv6, ICMPv6, DNSv6,IPv4-IPv6 tunnels etc
08	Address Translation	Static NAT, source NAT and destination NAT with Port Address Translation (PAT), Dynamic NAT, NAT64 etc
09	Features	IP based video, voice services, Jumbo Frames, Port Mirroring, VLAN support, PPP, PPPoE, HDLC, MLPPP, 802.1Q, MSTP, RSTP etc
10	QoS Features	ACLs, Priority Queuing, Bandwidth Guarantee/sharing, Traffic Policing, DSCP etc
11	Monitoring and Diagnostics	RMON, SNMPv3, Flow features, Syslog, statistics, RMON, alarm using CLI & GUI,loopback testing, trace route, packet capture
12	Software and Licensing	Software and Licenses required for above all features, in-addition to the latest routing, switching, security, QoS features to be specified and quoted
13	Management Interfaces	Ethernet, Console, USB
14	Reliability and Hot-swappability	a)Internal redundant power supplies (N+N) b)Hot swappable Modules
15	Rack mount kit	Rack mount kit with all accessories to be provided
16	Support	Telephonic, Email, Web-based with user account for S/W upgrades, updates, online fault ticket booking etc
17	Warranty	3 year on-site, 8X5 NBD with parts replacement

Note:

Vendors to quote individual part numbers with separate line items for

a. Base Item
b. Firmware/Network operating system/Software features
c. Hardware modules like SFP etc
d. Support and Warranty

SL No.7

SPECIFICATION

FOR

SUPPLY & INSTALLATION OF OPTICAL SWITCH FOR ROUTER LAB
QTY. 01 no.

[Pre-bid meeting on 06-02-2015 15.00 hrs]

Specifications for Optical Cross Connect Switch for Router Lab:

One no of Optical switches required in router development lab for connectivity between equipments like load generators, analyzers, switches and routers.

- Number of minimum ports: 144 Duplex
- Minimum Switching Capacity: 144x144 matrix
- Bidirectional dark fiber switching
- Fully non-blocking
- Protocol and speed independent (must support 1G/10G, STM-1/4/16)
- Maximum Insertion Loss: 4dB
- Connector type: LC
- Single mode fiber connectivity
- Wavelength support: 1310nm/ 1550 nm
- Switching must be at optical level rather than converting to electrical and then optical
- Network Management: Web and CLI based management
- Power supply: AC (220V, 50Hz) or DC (-48 V)
- Mountable in 19” data rack

SL No.8

SPECIFICATION

FOR

SUPPLY & INSTALLATION OF
DESKTOPS
Slab Qtys. 01 - 100 nos.
101 & above

Specification for Desktop Systems

Sl No	*Particulars*	
	Model/Make Quoted by the vendor	**To be filled by Vendor**
1	CPU/Clock Speed	**1 x Intel Core i7 4790@3.6 Ghz or later**
2	RAM	8GB (2 x 4 GB) 1600 Mhz DDR3 NON ECC SDRAM upgradable to 16 GB. Minimum 4 memory slots
3	Storage	1 x 1 TB 7200 rpm SATA III HDD or later
4	Video Graphics	Integrated
5	Monitor	21.5" LED Flat Panel Display 1920X1080 resolution from desktop manufacturer
6	Keyboard/mouse	Multimedia/Internet Keyboard and Optical Mouse from desktop manufacturer
7	Optical Media Drive	DVD ROM /DVD+/- RW Drive
8	Operating System (with media)	Windows 8.1 Professional (64 bit)
9	Network Interface	Gigabit Ethernet 10/100/1000 Mbps LAN interface
10	Ports	Minimum 6 USB 2.0/3.0 ports 1 RJ45 1 VGA 2 Line in (stereo/microphone) 2 Line out (headphone/speaker)
11	Audio	Integrated with stereo speakers
12	Bus Slots	Minimum One x16 PCI Express free slot
13	Driver accessories	Required drivers and cables to be provided
14	Power Supply	220-240 VAC, 50 Hz With Indian Power cables
15	Application Software	Microsoft Office 2013 Home and Business Edition, Original Media with Licenses.
16.	Anti Virus Software	Latest version of Kaspersky (license & media) with 3 years support

17	Installation	(a) Hardware inventory, Testing of Ports (b) Onsite disk Partition (Minimum 3), OS installation (c) Stickers giving details of Support, warranty to be affixed on the systems after installation
18	Warranty	(a) 3 years Comprehensive onsite warranty support for Hardware and OS from the date of Installation/Acceptance by CDOT (b) Vendor should provide warranty card mandatorily from OEM. Warranty from the supplier alone is not acceptable.
19	Post Sales Support	(a) Principal/Supplier should have a full fledged service center in Delhi and Bangalore . (b) Support should be either from OEM/System Integrator participating in this quote (c) Service response time should be NBD. Downtime should not exceed 3 working days. Vendor should either service the system or provide standby system with in the specified timeframe . (d) Vendor should provide Proof of address in Delhi and Bangalore

Note :

1. Vendor should mandatorily enclose authorization letter from the Principal else quote will not be considered.

2. Incomplete quotes and quotes with out data sheet too will not be considered

3. Technical compliance shall be provided with model no. and OEM data sheet marking the compliance as per CDOT specs.

Blank commercial bid shall cover all orderables as per technical compliance .If any missing items are there, same shall be supplied free of cost

SL No.9

SPECIFICATION

FOR

SUPPLY & INSTALLATION OF
LAPTOPS
QTY. 01 no.
Slab Qtys. 01 - 50 nos.
51 & above

Laptop Specification

Sl No.	Feature/Requirement	Details
	Laptop Model	
1	Processor	Intel Core i7-4600U processor or later
2	Memory	2x4 GB DDR3 SDRAM@1600 Mhz or 1x8 GB DDR3 SDRAM@1600 Mhz
3	Storage	500 GB HDD DVD ROM/DVD +/- RW Drive (External)
4	Graphics	Intel HD Graphics Simultaneous Display on native Display and external Monitor/Projector
5	Display	14'' LED Backlit, Anti glare color display resolution 1600X900
6	Communication Interface (Integrated)	1. 10/100/1000 Mbps Ethernet 2. 802.11 b/g/n WLAN 3. Bluetooth 4.0
7	I/O Ports	1. VGA Port 2. Speaker/Headphone jack 3. Microphone jack 4. Minimum 3 USB 2.0 or higher ports 5. RJ45 Gigabit Ethernet Port
8	Audio	High definition audio, integrated microphone and stereo speakers
9	I/O devices	Full sized Keyboard, Integrated Webcam.
10	Operating System	Microsoft Windows 8.1 Professional 64 bit
11	Application Software	Microsoft Office 2013 Home and Business edition. Original Media with Licenses.
12	Anti Virus	Latest version of Kaspersky (license & media) with 3 yrs. support.
13	Battery Backup	Minimum 4 Hours
14	Power Adapter	220-250 VAC
15	Weight	Less than or equal to 2.7 Kg
16	Installation	(d) Testing of Ports (e) Onsite disk Partition (Minimum 3), OS installation

		(f) Stickers giving details of Support, warranty to be affixed on the systems after installation
17	Warranty	a. 3 years Comprehensive onsite warranty including battery b. Support for Hardware and OS from the date of Installation/Acceptance by CDOT c. Vendor should provide warranty card mandatorily from OEM. Warranty from the supplier alone is not acceptable
18	Post Sales Support	a. Principal/Supplier should have a full fledged service center in Bangalore and Delhi (Contact address to be provided). b. Support should be either from OEM/System Integrator participating in the tender c. Service response time should be NBD. System downtime should not exceed 3 working days. Vendor should either service the system or provide standby Laptop with in the specified timeframe .
19	Accessories	Original Leather Carrying Case

Note :

1. Vendor should mandatorily enclose authorization letter from the Principal else quote will not be considered.
2. Incomplete quotes and quotes with out data sheet too will not be considered.
3. Technical compliance shall be provided with model no. and OEM data sheet marking the compliance as per CDOT specs.
4. Blank commercial bid shall cover all orderables as per technical compliance .If any missing items are there, same shall be supplied free of cost.

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